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## WNT and $\beta$ -catenin signalling in airway smooth muscle: emerging concepts for asthma

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List of publications



## Published abstracts

1. **Koopmans T**, Kumawat K, Menzen MH, Halayko AJ, Gosens R. Regulation of actin dynamics by WNT-5A: implications for human airway smooth muscle contraction. *The FASEB Journal*. 2016;30:1012.1
2. **Koopmans T**, Crutzen S, Halayko AJ, Gosens R. Pharmacological inhibition of  $\beta$ -Catenin/CBP interaction with the small molecule ICG-001 inhibits proliferation and extracellular matrix production in airway smooth muscle. *Am J Respir Crit Care Med*. 191;2015:A5582
3. **Koopmans T**, Kumawat K, Van den Berge M, Hoffmann R, Halayko AJ, Gosens R. WNT-5A and WNT-5B modulate calcium homeostasis in airway smooth muscle. *Am J Respir Crit Care Med* 189;2014:A5585
4. **Koopmans T**, Kumawat K, Van den Berge M, Meurs H, Gosens R. A functional role for WNT-5A in driving airway myocyte proliferation. *Eur Respir J* 2013 42: Suppl 57, P4882

## Published manuscripts

1. **Koopmans T**, Eilers R, Menzen MH, Halayko AJ, Gosens R.  $\beta$ -catenin directs NF- $\kappa$ B p65 output via CBP/p300 in human airway smooth muscle. *Front. Immunol.* (2017).
2. **Koopmans T**, Gosens R. Revisiting asthma therapeutics: focus on WNT signal transduction. *Drug. Discov. Today*. (2017).
3. **Koopmans T**, Crutzen S, Menzen MH, Halayko AJ, Hackett TL, Knight DA, Gosens R. Selective targeting of CREB-binding protein/ $\beta$ -catenin inhibits growth of and extracellular matrix remodelling by airway smooth muscle. *Br. J. Pharmacol.* (2016). doi:10.1111/bph.13620

4. **Koopmans T**, Kumawat K, Halayko AJ, Gosens R. Regulation of actin dynamics by WNT-5A: implications for human airway smooth muscle contraction. *Sci. Rep.* 6, 30676 (2016)
5. Kumawat K, **Koopmans T**, Menzen MH, Prins A, Smit M, Halayko AJ, Gosens R. Cooperative signaling by TGF- $\beta$ 1 and WNT-11 drives sm- $\alpha$ -actin expression in smooth muscle via Rho kinase-actin-MRTF-A signaling. *Am. J. Physiol. Lung Cell. Mol. Physiol.* 311, L529-537 (2016)
6. Kumawat K, **Koopmans T**, Gosens R.  $\beta$ -catenin as a regulator and therapeutic target for asthmatic airway remodeling. *Expert Opin. Ther. Targets* **18**, 1023–1034 (2014)
7. **Koopmans T**, Anaparti V, Castro-Piedras I, Yarova P, Irechukwu N, Nelson C, Perez-Zoghbi J, Tan X, Ward JP, Wright DB. Ca<sup>2+</sup> handling and sensitivity in airway smooth muscle: mechanisms and therapeutic targets. *Pulm. Pharmacol. Ther.* 29, 108–120 (2014)
8. Strijkstra AM, **Koopmans T**, Bouma HR, De Boer SF, Hut RA. On the dissimilarity of 5'-AMP induced hypothermia and torpor in mice. *Living in a seasonal world* (2012)

## Manuscripts in preparation

1. **Koopmans T**, Rinkevich Y. The surface mesothelium: a developmental and pathological protagonist of trunk organs and their cavities. Submitted.
2. **Koopmans T**, Liu J, Shaposhnikov D, Feuchtinger A, Drukker M, Rinkevich Y. An Electroporation system for cell tracking and gene function studies in surface mesothelium. Submitted.
3. **Koopmans T**, Menzen MH, Smits R, Gosens R. Characterization of smooth muscle-derived WNT-5A in allergic asthma: modulating effects on Th2-cell activation. Manuscript in preparation.